ART AT THE PAN-AMERICAY.

It is a frequent complaint of painters that there is no art atmosphere in America. On the other hand, the future historian of American art may very probably note this to have been one of the reasons of its lusty growth. What passes for an art atmosphere abroad is often nothing more than the injudicious applause of a populace craving for sensation or the "you scratch my back and I'll scratch yours of the little coterie of mutual admirers. The really big men have for the most part gotten away by themselves, indifferent to the one kind of atmosphere and nauseated by the other, and it is the same over here.

Some of our best painters have been prac-tically self-taught, others have studied in the schools of Paris, but in each it is by concentration upon themselves that they have evolved something notable. One cannot instance a better example than that of George de Forest Brush. He was the pupil of Gé-rôme and between the minds of the two men there may have well been considerable affinity but you will not find much evidence of the younger man's method being influenced by is master's.

Something of it may possibly be detected in an early example exhibited here, "The Sculptor and the King." It has the smooth inis h of some of Gérôme's work, but a more complete harmony of color than he achieves: indeed, such similarity as it has consists mostly in its archmological bias and in the thoroughness with which an old-time feelamong the Indians was, surely, characteristic of Mr. Brush's independence of mind, as well as of the conviction within him that he had something of his own to say. Another very beautiful example of this period "Silence Broken"-an Indian kneeling in his cance and looking up as a wild goose breaks overhead from the thicket of trees which line the river bank. It suggests with remarkable vividness the vast solitude of primitive nature and the grand composure the savage, silent and undisturbed, a part of the immensity around him. It is the work of a powerful and sympathetic imagination that has been able to penetrate into the heart and mind of the past, and makes one regret that these Indian studies are so few. But they sufficed, no doubt, to help Mr. Brush to discover himself and he has of late put all the force of his matured powers into the series of pictures entitled Mother and Child." The one here shows is owned by the Boston Museum of Fine Arts and includes only the two figures. In every respect it is great art, the kind of work that creates its own atmosphere of dignity and makes one feel in the presence of something higher, farther reaching and more deep in purpose than is usual. It has the same elevating and compre-

hensive qualities that belong to the masterpieces of John La Farge. These, unfor unately, cannot be seen here, since one would have to search for them in mural paintings and stained glass windows. But two studies are shown and one of them, "Nicodemus and the Saviour," conveys some suggestion of his marvellous use of color, at once so magnificent and subtle and always so full of intellectual as well as sensuous meaning. It is weil to remember in one's satisfaction over this excellent display of American art that it of necessity fails to represent adequately our greatest creative artist, as well as sev eral others whose most important works of late years have been mural paintings. There is another painter also whose big work will not be found here. In any consideration of independent and self-centred work the name of Winelow Homer occurs to one's mind, but on this occasion, by a sort of selfdenying ordinance, he has refrained from any of those grand studies of the Maine coast, which realize so powerfully the color and movement of the ocean, and the majesty of its strength, preferring to be represented by a dozen water color sketches and the Bermudas. One can understand that they mean much to him, for they are full of the joie de vivre; recollections of brilliant alex and water and the fascinating novelty of tropical vegetation. Everything has been seen and felt in a large way and recorded with the directness and enthusiasm of one thoroughly accomplished in the water color medium. Still in this array of American art the great phase of

his work should have been represented. It can scarcely be disputed that in the qualities of sincere and penetrating vision and of eloquent record Dwight W. Tryon is among the foremost of our artists. He can be studied here in nine pictures, all characteristic, although they fail to include! every one of the manners of this versatile artist. Two very beautiful examples are "Sunrise" and "After Showers—June," but the giant of the group is "Early Spring, New England," lent by Mr. Charles L. Freer. And how gentle and unobtrusive a giant it is Judged by our usual scale the canvas is a very large one, but every inch of it is filled with interest; not, however, in a diffusive way, but with a unifying adjustment of everything to the single impression. It represents a long vista of New England meaddow, rising to ploughed land at the back; trees, just budding, standing in small groups There is an almost stern reality in the construction of the ground, and yet the bare sweep of surface yields innumerable little bits of interest, abounding, like nature, with quiet manifestations of life. The picture gleams with tender colors and over all is brought the fresh, soft atmosphere. The evidence of minute observation is remarkable, no less than the loving thoroughness with which the result has been elaborated: and yet the best quality in the picture is the completeness with which it brings home to one's own heart the reality and sentiment of the scene. It is not the sort of work that needs, or could be produced in, the average "art at-mosphere."

One's thought turns to J. Alden Weir's "New England Ploughman" and "New England Factory," because they represent the same character of scenery and somewhat the same order of mind; penetrating, reflective, poised and sympathetic. Their manner is different, being less minute in record and more gen eral in the impression conveyed. But the latter is so robust and whole-souled that it is stimulating in a most marked degree.

Another genuine independent is Abbott H. Thayer, represented on this occasion by Mr. George A. Hearn's "Portrait of a Young Woman," which secured the gold medal at Paris and by "The Head" which belongs to Mr. Charles L. Freer. Here we meet another pupil of Gérôme's, but his developmen has been entirely his own, for he is one of those who paints with his mind-and that a very gifted one—as well as with his hands. His work shares with that of other leading American painters in the characteristic of being distinguished by its human significance and not by its technique or artistic point

So far one has made no mention of the

lar caprice cometimes they are as read rejected as bestowed.

Chicago, during the period of the 1 fair, was called the White City, in acknowled ment of the staff on its fair buildings, ? title did not survive the close of the fair and Chicago has reverted to its former name

and Chicago has reverted to its former name of Garden City most generally, though no reason exists why it should be called the Garden City other than the fact that it is the chief city in Illinois, which has long been known as the Garden State.

Another illustration of the uncertainty of public preference in the nicknaming of American cities is shown in the case of St. Louis. The largest city in the Mississippi Valley, the largest city in the Mississippi Valley, the largest city in the United States, by the 1900 census, St. Louis has no accepted nickname, though it has been called alternately the Iron City, the Mound City, the Beer City, the American Frankfort and the New Vienna.

nately the Iron City, the Mound City, the Beer City, the American Frankfort and the New Vienna.

On the other hand, the titles of the Crescent City for New Orleans, the Quaker City for Philadelphia and the Monumental City for Baltimore have adhered throughout the Baltimore have adhered throughout the changes of a great many years. Buffalo's supremacy as the Queen City of the Lakes is challenged by Cleveland, Chicago, Detroit and even Duluth, but its title, the Rainbow City, has not thus far had to be defended.

### THE CITY BEAUTIFUL.

John Do Witt Warner Tells of Some Things

Being Dese to Make New York So.

John De Witt Warner, President of the funicipal Art Society, tells in the Municipal Journal and Engineer what the society doing to improve its opportunities. With all deference to art, he says, the society has no interest in it whatever except to nake it serve the city's welfare. The ociety's point of view, every time, is the ity's interest.

It has been its custom each year to pronote the single piece of art work that seems most timely and practical, and this will be continued. The society proposes to devise how with least expenditure most of beauty and interest can be added.

Street corner signs and house numbers Mr. Warner says, can be so made as clearly

Mr. Warner says, can be so made as clearly to inform every passerby without disfiguring either the landscape or the house. Street lamps and police and fire alarm boxes may be made dignified and artistic features. The Municipal Art Society proposes to have them so. When the city has spent millions of dollars for a park, and its citizens other milions on residences fronting it, consistency and true economy, even more than art, demand appropriate park entrances. The society proposes to take hold of the business sign question as well, and has appointed a committee to represent it in working to secure decent, appropriate and even beautiful, business signs. It wishes also to secure intercity, interstate, and interto secure intercity, interstate, and inter-national cooperation for such work. "New York," says Mr Warner, "is the

"New York," says Mr Warner, "is the first city in the world in annual development, public and private, and far the most lavish in her expenditure thereon. For this reason, New York city should set the pace which others follow. And we maintain that into this growth shall go as much good art as there is put good cash; or, in other words, that the funds used shall be expended as effectively as possible for the other words, that the funds used shall be expended as effectively as possible for the city's beauty and convenience. By the time New York is the greatest city on earth it ought to be the most beautiful. Its wealth and natural advantages are such as to make this easy of achievment.

### THE EXILED BOERS.

The British Have Scattered Them Widely Different Parts of the World.

A small sketch map, occupying a corner of the Geographischer Anseiger, shows the of the Boers captured in South Africa are now kept in confinement. Having distributed the prisoners from India to Bermuda it will certainly not be easy for them to plot against the British Government.

Cronje's soldiers, the first large party o fall into the hands of the British, were landed on the island of St. Helena in April last year, and have been living ever since on Deadwood Plain, as the Islanders call the plateau that rises about six hundred eet above the sea on one side the por

Another part of the Boer Army, 700 in number, marched eastward over the Transvaal frontier into Portuguese territory. They were captured near Komati Poort, the gateway through the mountains by which the railroad from Lorenzo Marques ascends to the Transvaal plateau. They were sent to Portugal at the expense of the British Government which is now paying the cost of their maintenance. Four hundred of them are confined in the citadel at Peniche, a small fortress on a peninsula jutting out into the sea a little north of Lisbon. It is a very secluded place, the at remene, a small forties on a permission jutting out into the sea a little north of Lisbon. It is a very secluded place, the few thousand inhabitants around the citadel being devoted almost exclusively to lace making. Four hundred men are all that the storage capacity of the citadel would accommodate and so the other 300, excepting the officers, were sent to Alcobaca, a few miles inland. Commandant Piensar who was in charge of the party when it surrendered, is kept a prisoner at Thomar, about fifty miles northeast of Lisbon, where still stands the famous monastery of the Knights of Christ to whom was conceded the privilege of "conquering the New World," whose deeds of prowess and rapacity both in Brazil and in the East Indies gave them an enduring and not very desirable reputation. The other officers are confined at Caldas da Reinha.

Another transport from South Africa Another transport from South Africa carried 600 Boers to Bombay, whence they were taken inland about one hundred

miles to Ahmednagar. Their present situ-ation does not appear to be particularly inviting if it is proper to call Ahmednagar "a hot, waterless, pestilent hole," in which terms a correspondent of the Manchester

Guardian has given his opinion of it.

Another batch of prisoners has been sent to the Bermudas. It seldom happens in any war that the defeated prisoners are widely scattered. so widely scattered.

# LOCUSTS IN THE PHILIPPINES. The South African Method of Getting Rid the Pests Will Be Employed.

A cable despatch to THE SUN from Manila says that enormous swarms of locusts have eriously damaged the crops in the southern islands and have also made their appearance in the region around Manila. The Philippine Commission is taking prompt measures to stop the ravages of this insect pest. Having a supply of the fungus culture that has been used with such remarkable results in killing ocusts in South Africa, an agent of the Health Department has been assigned to distribute it in the regions where the crops are being destroyed. This wonderful remedy is comparatively new, but it has proved to be most efficacious in regions where it has been tried and there is reason to believe that it will stop

the ravages of the pest in the Philippines. The discovery of this remedy is one of the nost remarkable among all the efforts that have been made to mitigate or destroy the harmfulness of various insects. Only six years ago the swarms of locusts that had been eating

with the malady and send them abroad to

So the Bacteriological Institute at Grah town, Cape Colony, began a series of experi-ments with the fungus and the locusts. The investigators succeeded in obtaining a pure culture from the fungus, which is now known as the locust fungus. All the insects brough to contact with it died in a few days. South Africa teemed with locusts in 1897 Great swarms of them threatened to desolate large areas from Cape Colony to Rhodesia Now or never was the time to test the efficlency of the locust fungus. Experiments on a large scale in the artificial propagation of ne disease were conducted in Cape Colony. Natal and Rhodesia. The results surpassed all expectations. Millions of the insects pershed within a few days after a few individuals nfected with the culture had been turned oose among them. The best results were obtained in rainy weather when the locusts remained longest in one place, thus facilitating the thorough dissemination of the disease among them. The least results were in hot, dry weather when the flight of the locusts was rapid, and the sick being left far behind a great many escaped the infection.

For the past three years the institute at Grahamstown has been putting up the cul-ture from the locust fungus in tubes and a reat many of the tubes have been ent thou sands of miles. The same excellent results have followed the use of the preparation plication have been found to be effective. Sometimes several insects are smeared with the culture and are then permitted to rejoin their swarm; another method is to drop the contents of the tubes upon bits of humid earth where the insects are feeding; a few locusts may also be enclosed in a bottle in which a little of their preferred food, covered with the culture, has been placed, and after they have eaten the food they are set at liberty: or the contents of a tube are dissolved in a basin of warm water, insects are immersed in it and turned loose; in fact, it doesn't make much difference how the culture is applied if it is brought in contact with a few of the insects. They become liseased and spread the infection.

The Germans reported from the region of Mount Kilimanjaro, 3,000 miles from the place where the fungus culture had been prepared, that four days after fifty locusts had been treated and turned loose, the insects were lying dead in heaps. If the remedy for the locust plague proves effective in the Philippines it will be quite satisfactory evidence that South Africa made a disovery in 1895 that will be a boon to many widely separated lands.

### PEARL FISHING IN VENEZUELA. Remarkable Revival of the Industry Off th Shores of Margarita Island.

When the Spaniards landed on the shores of Margarita Island, off the north coast of Venezuela, four centuries ago, they found the necks of the natives adorned with strings of pearls. They lost no time in securing possession of these valuable ornaments at little expense to themselves, for the native pearl market was well stocked and prices were low. Margarita was one of the islands discovered by Columbus in his journey of 1498. The Spaniards were very eager, of course, to discover the place of origin of the pearls and only a year later a man named Guerra found the pearl banks off the south coast: it was not long before other banks were discovered around the bores of the island.

This new source of pearls was a magnet that drew many adventurers to the island The neighborhood of Margarita became one of the busiest regions of the Spanish main. Margarita is quite a large island, though smaller than Trinidad. Its extremities, the larger part of it, are connected by a narrow sthmus so that it has something the appearance of a dumbbell. For centuries the fishing grounds of Margarita have contributed to the world's supply of pearls, but in recent years the industry has been lmost shandoned as the banks see

be about exhausted, while the pearls fell in value so that fishing was not profitable. The past few months have witnessed a wonderful revival of the industry. Pearls a wonderful revival of the industry. Pearls have advanced in price owing to the fact that the supply from larger grounds has fallen off. The large fisheries off the north coast of Australia, for example, have been yielding comparatively few pearls, and the industry is now carried on there, not so much for the gems as for pearl shell, or mother of pearl, as it is known in the trade. Times had been very dull in Margarita, for many years, but there is now extraordinary activity in the island. Buyers from different parts of the world have gone to Margarita to live on that sandy and not particularly inviting island. Their and not particularly inviting island. Their business, of course, is to purchase from the native fishermen the gems they wrest from the shallow depths around the island. There are no such lively scenes on the Grand Banks among the cod fleet as are witnessed to-day in the waters over the beds off the northeast and northwest shores of Mar-garita. About 2,000 natives and 400 sali-ing vessels are engaged in the industry. The long-neglected beds have had time for recuperation, and the gems fetch a good price in the Paris and other markets; so this is a harvest time for the natives who are improving each shining hour. The Venezuelan Government, always alert to discover a new source of revenue, is deriving considerable advantage from the industry by taxing all the boats engaged in it. These boats are from three to fifteen tons in size, and the whole fleet is on the grounds during most of the daylight hours,
Back and forth the vessels sail over the
oyster beds dragging big iron scoops which
are soon filled with mud and oysters. They
are then brought to the surface and the
shells are opened and carefully examined.

shells are opened and carefully examined. This is a crude and wasteful method of fishing for pearls. The great objection to it is that it tears the small as well as the large oysters from the beds, though the small shells should be left undisturbed to grow and increase in value. A French company has just begun fishing with divers and diving apparatus, which is the preferable method. The Venezuelan Government taxes only the boats of the native fishermen, but the foreigners must pay a royalty of 10 per cent, on the profits of their enterprise.

The results thus far this season Justify

royalty of 10 per cent, on the profits of their enterprise.

The results thus far this season Justify the opinion that the value of the output this Year will be about \$600.000. It would be much increased if the shell of the oyster were more valuable, but it is found to be too thin for the manufacture of buttons and other articles such as are made from the shell of the Queensland and Bahrein Islands fisheries. The thinness of the shell is said to be due to the short life of the Margaritan oyster, which is not usually more than eight years. The pearls, however, areof finequality and beautiful lustre. Most of them are white to yellow in color and sometimes an almost priceless black gen is brought to the surface. In May last a large white pearl was sold in Margarita for \$1,700. Such prizes, however, are not found often, though every time a large oyster is opened the fisherman hopes he will find a pearl of unusual value. Most of the pearls go to Paris, which is regarded as the great centre for the distribution of pearls, and as the market which, on the whole, offers the best price for them.

works of Inness, Wyant, Homer Martin or Theodore Robinson, since they are dead, and for the present one has had in mind the men who are actually engaged from year to year in creating something different from was set on foot to try to discover what kindly influence had so unexpectedly rid the country of the little pests. The result of the investigation seemed to prove conclusively that the disease was the result of feeding upon a fungus growth which was not only poison to the locust eating it, but also so infectious that a few of the diseased insects could, in a very short time, communicate the malady to millions of others.

It is agreed among visitors to the Pan-American Fair that Buffalo, long called the Queen City of the Lakes, will be known here after as the Rainbow City, in deference to after as the Rainbow City, in deference to its a feature of the Exposition. The Rainbow great relief of the colony whose crops were thanks an attractive sound and it is certainly appropriate to the fair, but names however carefully chosen, for American because of the course of the locusts of the lo

planting. The course is particularity and to persons who wish to fit them is for practical work as forcet rangers.

se.ves for pre Instruction in forestry is now given in a number of agricultural colleges, industrial schools and other institutions, both in conas separate courses, and in the opinion of Prof. Graves, it would doubtless form part of the instruction in botany and nature study

Prof. Graves, it would doubtless form part of the instruction in botany and nature study in public and private schools if the teachers were properly equipped. Their needs will be met by the course of instruction offered at the summer school. There is also an excellent opportunity for advanced students to carry on special work under the immediate supervision of capable instructors.

The summer school is located in Milford, Pa., and there is quite a band of students there now. It will be continued up to the time the students return to Yale in the latter part of September, when the vacation is over. Through the generosity of James W. Pichot a thorough equipment for the school has been provided.

The main building contains a large hall capable of seating about 100 persons, which is used for general lectures, and two smaller rooms, one of which is used as a laboratory and the other as a special library and reading room. For practical instruction in the field. Mr. Pinchot has given the use of a forest of about 260 acres, and also of considerable open ground for work in tree planting. The larger forests in the neighborhood offer excellent opportunities for study in sliviculture and forest botany, silviculture, forest measurements, forest protection and introduction to forestry. Practical work in the woods forms a very important part of the instruction. In connection with the course in forest botany frequent excursions are made to train the students to diatinguish the native and foreign trees and shrubs. A large part of the work in silviculture is devoted to practice in selecting trees for thinning, in locating reproduction and improvement cuttings and in the students to diatinguish the native and foreign trees and shrubs. A large part of the work in silviculture is devoted to practice in selecting trees for thinning, in locating reproduction and improvement cuttings and in the students will have abundant practice in sudying the growth of trees and making estimates of standing timber. In the course in forest protection

### MATCHES.

Results of Ingenious Machinery in Cheapening the Product - Aspen the Favorite Wood Used. It was found a few years ago that each of the inhabitants of Great Britain consumed on an average, eight matches a day. The consumption in this country per capita is considerably larger, though exact statistics cannot be given because of Treasury returns of the imports of matches convey no idea of the number brought into the country, which is certainly large. The foreign matches are not so cheap as ours but for one reason or another there is a considerable demand for them.

If we figure on the British basis of eight matches per capita a day the home con-sumption is 610,427,096 matches a day. This enormous figure may be accepted as approximately the home consumption of home made matches in addition to the foreign matches that are found in all of our markets; but it by no means represents our total output, for a considerable quantity of American matches are sold in European and other

Success in matchmaking, at the present time, is largely a question of machinery. Matches are sold at a price so exceedingly small that the manufacturers controlling the best machinery for eliminating hand abor and producing excellent matches at minimum cost have a great advantage n trade. It is next to impossible for one match factory to compete with another uness its machinery is equally efficient. It cannot buy the machinery used in rival factories for it is almost invariably the case that a manufacturing concern absolutely controls the patents it has thought it advantageous to employ. In order to compete successfully in the match industry, nowadays, it is practically essential to own machinery that it at least as perfect as any sed by rival establishments.

American match-making machines are he best in the world, which accounts for the success of the American concern in England the other day in absorbing the plant and business of the largest British establishment. In the meeting held for the purpose of voting concerns, the President of the American company, addressing the shareholders of the British company, told them plainly that though the American enterprise had occupied the British field only a few years it was competing successfully with their own industry on their own ground, largely for th reason that American machinery was su-perior to that of British invention.

Our public is paying for matches to-day less than half what it paid twenty years ago though they were then regarded as very cheap. Elderly persons can remember the time when matches were husbanded with con siderable care, for it did not take very many of them to represent the value of a cent. But now, thanks to machinery and improved processes, nobody cares very much how many matches he wastes trying to light his pipe on a windy day. In fact, matches are so cheap that the cost of supplying a grea country with all the matches it wants does not reach an impressive figure. The total prodnet of all our match factories is sold for less than \$10,000,000 a year, which cuts a very small figure when it is remembered that the value of the machines of all kinds that are produced in this country every year is alone about \$400,000,000. Match manufac-

turing is a small industry after all. Not many establishments are required to turn out the matches this country needs Over in New Jersey, only a few miles from this city, there are two factories with a capacity together of 90,000,000 matches a day The largest factory in the country, at Bar-berton, Ohio, can turn out 100,000,000 matches a day, probably a seventh of the entire con-

This country has a great advantage in the abundance of aspen, which tree is superior to all other timber for match making on ac count of its natural qualities and the ease with which it is worked. It is light, spongy and splints easily, and though pine, linden birch and other woods are also used in this and other countries, aspen is preferred to them all. European match manufacturers have been engaged in a scramble for years past to secure a sufficient quantity of aspen Germany is importing from Russia every year about 3,500,000 cubic feet of aspen to

supplement her own supplies. A while ago the German manufacturers petitioned the Minister of Agriculture and Forestry to cause the foresters in the districts where match factories are situated to give more attention to raising the aspen. A similar appeal has been made to their Government by the matchmakers of France Russian manufacturers have been opposed Russian manufacturers have been opposed to the wholesale depletion of their forests by foreign matchmakers and have not been slow to appeal to their Government to stop the exportation of aspen. Fortunately for our matchmakers, the home supply of aspen is very large and the wood is little used for other manufacturing purposes.

# Viscogen for Adulterating Milk.

From the St. Pau' Pioncer Press.

PORMS WORTH READING.

Omar-On a Boof-Garden. Though fram and his roses all are gone And Jamshid's oup lives only in a song, Still bubbles kindle in the flowing wine High on roof gardens of New Babylon.

Here might Old Omar some and stp his sup Of heavenly vintage, and to stars took up And bless the blessing that men call a curse, And sing to modern heathers, as they sup: "Drink! for you know how hot it is below.

Drink! for more drinkers thirst in waiting row. Oh, make the most of what you have to spend. Dream not of the ebb while you enjoy the f "But catch each passing breeze that comes your way And think of those who swelter still, and say, With up-lift glasses, 'Gladly thanks we give For roofly pleasures'—and then bravely pay."

A Service of Hand Prom the Chicago Record-Herald.

They've given loving service—those noor hands
With fretted nails, and fingers bent and wors.

They bear the sears which Sacrifee demands
When from their cherished idols rudely torn.

I love to think that once that calloused pairs, With dimples in the rosy flesh was ret, That once fond lips anointed with love's balm. Pressed kisses there that live in memory y Those knotted hands with soft and reverent tre Have gently closed tired life o'er sightless sy Theil clasped in prayer before the throne of Grace Asked entrance for a rout in Paradise.

Dear hands! Brave hands! I nevudly honor you For lofty deeds in lowly spirit done.

Mainted and unbeautiful to eareless view W hat victories of peace those hands have won!

M. I. RATNF.

The Milkweman. From the London Sportate

She was tall and strong, and she waited along with a firm, substantial tread. Like one who knows that wherever she goes She is earning her daily bread. Her fronk was print, and there was not a hint in the whole of her simple dress of that milliner's touch which adds so much To a lady's someliness.

Yet she is aware, that her face is fair;
But also understands
That the best of her charms are her atout red
And her strong, hard-working hands. "It's them." says she, I'ms has work'd for me, Wherever my work has been; And as for my face, why, it's no diagrace. For I zeckon it's always clean.

"Well, there's Jack, I know, he bothers me so. But what do I care for him? I'll he' nothing to say to a lad that's gay, So long as I've life and limb! "Such chaps may do for a wench like yes.

As is fond of an easy life;

But I f get a man, I shall do what I can
For to make him a working wife."

She smiled as she spoke, and she settled her yoke On the back of her shoulders broad. And she stoop'd to her palls by the area rails. And harness'd herself to her load.

Then she went on her beat through the bustling stree With a step like a martial man's: A step that suits her iron-shod boots And the weight of her clahking cans. For her cans and she had the bulk of three, And defuly as she might steer. Twas the silent might of her strength and her height That kept the pathway clear.

There were many who eyed her stately stride.
As she moved through the yielding crowd,
with her hands on her hips and a smile on her lips
And a look both calm and proud.

But none, or few, of the gazers knew The worth of her humble trade: And beauty alone may never atone For the lot of a milkman's maid. They could not see what was clear to me— That the loftiest lady there Might enry the part in Dame Nature's heart Which is owned by Kitty Clare.

Sonnet of Evening to a Distant Clock Tower From the Whim. Strikel thou distant clock thy dead hours slow,
'Mid purpled trees I see thy tower arise.
Ohl leave a while this feast before my eyes—
Time's but a little part of long ago.
Dost love the dark that steals this evening glow
And haunts thy alceping tower with night bird eries
seel the Lord hath filled with gold the blace;
Hath Night her proudest mantle woven so:

Night hath none, but streaming o'er her brow Were treases bright as yonder heavens weave To tell thy hungry bell the day is o'er. Ringf i will watch the gold soft fading now into the dark and sullen shades of eve. Until my eyes be dim and see no more. PENRHYN STANLA

From the Chicago Record-Herald. A boy hung in a cherry tree,
Because a jagged limb
Had pierced the little trousers that
His ma had made for him.

Ah, she had sewed them good and strong, Twas well she made them so— The ground then nearest to her son Was twenty feet below.

The farmer sauntered down the lane, A sturdy man was he: He saw the child and stopped a while Beneath the cherry tree. That night a boy went limping hom Depressed and bruised and sore, And vowing he would "never climb

And vowing he would "ne A cherry tree no more." He wore those little trousers out:
The years went gliding past,
And, as a man, he stood beside
His mother's grave at last.

They cut the cherry tree away,
Hecause the town had spread,
And some one wished to clear a site
On which to build a shed.

One day a man who, as a boy, Had made a vow that he Would never, never, never climb Another cherry tree,

Beheld, with watery lips, the rare, Red cherries that grew high Upon a tree that chanced to be Where he was passing by. They found him lying where he fell, The trousers that he wore Were not as strong, alas, as those Ills ma had labored o'er.

MORAL.

Though you should drain the spreading sea,
The luckless man who came
On earth to drown would find some hole
To drown in just the same.

S. E. Kise

# The Swamp Singer

From the Boston Courier.

List to his voice—

Ker runk! ker chunk!

As he sings in the lowland sedges.
List to the plunge of his dart-like lunge

As he dives where the cross-meed dredges;
The fox-fire plows in the misty gray

(of the home of the singer chilly,

Whose poperes peap in a furtire way

List to his voice—

Ker-runk! ker chunk!

As he sits on the bank a-dreaming.
List to the splash as his sleek legs dash.

To the depths where the fash are gleaming:
The sunbeams creen through the leafy gloam.
Of the nook of the singer chilly.
Whose nop-yes peen from his island home.
The breast of a white pond lily.

H. S. KELLER.

On the Water Wagon From the New Orleans Times-Democrat

See the mellow things he mixes. Juley drinks he defily fixes. See the man behind the bar.

See the boozer as he boozes.
See the juley things he chooses,
See the lees,
Smell the spices.
See the swig.
See the jigger, and the jig.
See the jigger, and the jig.
See the swaddle.
Hear the spiel,
See the swaddle, and the swag.
See his jaglets, and the jag—
See the man before the bar.

## The girl may have hinted she'd like to essay Some ballad or similar thing. She may have suggested she'd like to display How clearly her upper notes ring.

She kindly consented to sing. The youth may have pleaded with voice and with pen For some one to give him "a show,"
He ne'er "gets a job" though appealing to men With tales of his worth and his woe,

But, give him a chance, he complaisantly then

She graciously gives her consent.

Accepts a position you know. To pose as a patroness may be the aim
Of a dame on preëminence bent, Though tricks that she tries in this popular game May clearly reveal her intent You'll notice when asked for the use of her name, QUESTIONS AND ANSWERS.

What eminent American political advocated the municipal ownership of land? 2. Whe wrote the national song of Protestant Germany 5. What mediaval theologian wrote the most famous of leve letters? 4. Which of the American poets mans of war, inspired by participation in battle 5. What famous massacre did Dumas describe and in which of his works? A SUN RRADER.

1. Henry George is meant, we presume. 2. Mai fin Luther: "Pin feste burg ist unser Gott." 3. Abe ard. 4. Philip Freneau. 5. The Massacre of 8 Bartholomew's Day, in his Valois Romance: "Marguerite de Valois," "La Dame de Mo

In "A Landmark History of New York" just published I notice that the place of execution of Nathan Hale is stated to be at Sixty-third street and Third avenue. Is this not an error! Was it not somewhere near where the statue stands?

The book is almost certainly correct; the statue is

In many conversationes among Americans many times them I hear refer to "Sam Hill" and "Great Scot." Great Scott and Sam Hill is who? They are great statesmans of back years? No? Thankful I shall be if you this tell me in your illustrus periodical. Waiting to be pleased.

"Great Scott" is a cuphemism for "Great God." may be a partial translation of the German "Grosse Gott," or may be an imitation oath, originating during the lifetime of Gen. Winfield Scott, U.S.A., Commander n-Chief during our Mexican War. another imitation oath or adjuration, described in Bartlett's "Americanisms" as having been popular n New England years ago; we do not learn who "San

In regard to the origin of Poe's "Raven," I thought it was well understood that it is an almost literal translation from the Persian of several centuries ago, as was proved in papers in England and United States years ago, and the details of Poe's study of the "old forgotten lore" of the Persian war given in full at the time.

A. V.

In your issue of July 7 I find a reference to the famous round robin signed by the various Generals during the Spanish war. Will you print a short account of why the round robin was signed, &c.? I would not ask this, but at the time it was done I was on a transport bound for Cuba and I have never heard the correct account; the one reported in Cuba was that an order was issued from headquarters to fall back and the Generals refused. It was also said Gen. Joe Wheeler signed it. MEMBER FIRST ILLINOIS.

The "round robin" was really a petition to Gen.
Shafter urging that the army be "at once taken out
of the island of Cuba and sent to some point on the hern seacoast of the United States," for the reason that the men were disabled by maiarial fever and that they "must be moved at once or perish." Gen. Wheele did not sign it; the signers were: Major-Generals Kent Bates and Chaffee; Brig.-Gens. Summer, Ames and Wood, and Col. Roosevell, acting Brigadier les and Chaffee; Brig.-Gens. Sumner, Ludlow

A man sold two horses for \$150 each; on one he gained 25 per cent., and on the other he lost 25 per cent. Did he gain or lose, and what amount?

W. H. and B. H. B. He bought the horses for \$320 and sold them fo \$300, losing therefore \$20 on the transaction.

Did the Queen of England free all deserters in her jubiles, 1897? Did she release all deserters by her death? My family had to go home on account of sickness and I wish to go with them. I am a full citizen of the United States, but I deserted ten years ago. What would you advise me to do? My children were born in America. If I am not free could I buy my discharge?

C. H. ARMY.

In 1887 amnesty was granted to deserters who within six months or a year should surrender themselves. re do not know that this was repeated in 1897. The death of Queen Victoria did not release deserters. however. We think that you can get a discharge by paying a sum that varies with the time you served uld get some one to represent you in writing o the Adjutant-General, Horse Guards, London, fo

In recent publications I notice that an acute accent is used in the name of Gen. John C. Frémont. What is the authority for this?

D. F. The late Gen. John C. Frémont.

1. How many people were killed at the fire in the "Bazar de la Charité" in Paris, and how many were men? 2. How many people were lost in the wreck of the Bourgogne, and were any of the officers or crew lost; also, did any of the officers receive the cross of the Legion of Romort" J. H. 1. In the Charity Bazar fire on May 4, 1897, it is

known that 121 persons lost their lives, and many others are believed to have periohed. One man, of French General, was burned so that he died; a few ther men lost their lives. 2. Five hundred and eight; four persons were drowned. Pour officers and 10 men of the crew were saved, and sixty-two passengers of whom one was a woman. We do not find that an of these four officers received the Legion of Honor.

Was the war debt of France ever paid to Germany! I mean the France-Prussian war of 1870? What was the amount? It was paid very promptly. The indemnity was fixed by Germany at five milliards of francs, say \$1,000,000,000. One-tenth was paid on July 14, 1871; liards more on May 5, 1873, ten months ahead of the time fixed, and the last installment was paid on Sept. 5

I have in my collection of little pictures one which is a British work of ari entitled "The Wreck of the Minotaur," painted I think by Turner, Can you tell me anything of the circumstances which led to the execution of that work?

The William Work? The British line of battle ship Minotaur, 74, Capt. John Barrett, was wrecked on Haak Sand, off Texel Holland, on Dec. 22, 1810. The picture by Turnet

is called simply "The Shipwreck." Can you inform me whether the famous Regent or Pitt diamond is still in the possession of the King of Prussia?

M. M. H. The Regent or Pitt diamond is in the Galérie

d' Apollon, in the Louvre, in Paris. Please let me know why Miss Horneck, with whom Goldsmith was supposed to be in love, was called the "Jessamy Bride." W. H. B. "Jessamy" is the same as jasmine; the term was simply one of affection given to Mary Horneck because

of her daintiness and beauty, seemingly. B bets that to get liquor in a public house in England on a Sunday during the prohibited hours, you must declare that you have travelled a distance of four miles from where you slept the night previous, D says the distance is three miles. Which is correct.

M. J. D. We believe that D is right.

J. Hall Williamson - 1. The American Navy ranks the German in respect of vessels in being. 2. Our navy is certainly fourth, and not impropably third among the world's navies; superior to us are Great Britain. France and possibly Russia. 3. The Pre mer of Great Britain is chosen by the Crown from the political party holding for the time being a ma-jority in the House of Commons.

Lawrence Murray .- A German who comes to this country before he is 17, and becomes naturalized here, cannot be compelled to serve in the army if he returns to Germany; an Italian between 20 and 39 years of age may be compelled to serve in the army

Philadelphia -- Buchanan Read's poem, "Sheridan's Ride," is accurate. Sheridan had been called to Washington, and had reached Winchester on his return on Oct. 18, 1864; the next morning he heard of the battle of Cedar Creek, and rode from Winchester in time to check the retreat and to organize victory.

W. Salt - The keeper of "Fraunces's Tavern" was "Black Sam" Fraunces. The tavern, usually called "Fraunce's," should be "Fraunces's." There was no "Burns's Tavern," but there was "Burn's Long Room way, where the Boreel Building stands now, N. E. Dwyer-A Congressman is not obliged to hold an examination for applicants before he makes

appointments to West Point and Annapolis. If he holds an examination, he is in honor bound to appoint the person passing first. J. J. F.—It is not improbable that the book you want can be bought at a book store. See if you can get it there and let us know; we should be glad to know

B. Eess—"The Lady of the Cameillas," called in English "Camille," is by Alexandre Dumas the younger; we do not know if it is the same as "Camille; a Tale of the Violin."

C. and G.-Conviction of a felony does not insofacto bring about a divorce between a convict and

if our guess was right.

his wife; it may be a cause for the granting of a divorce, W. M. S.—The present Buffalo Bill is the old ori-ginal Bill, the hero of the fascinating tale "Buffalo

Bill's Best Shot," and of others equally thrilling. J. M .- The wooden pipes dug up in the lower part of the city from time to time were laid by the Man-

hattan Company about a hundred years ago. T. C. L., Aloany—We published Mr. Phelps's poem, "Essex Junction," on March 19, 1888; we cannot

reprint it. S. W. P .- We think that soup is eaten, not drunk, Howard Grove-"To bravely die." "to at once pro-

med," are split infinitives. G. H. T .-- THE SUN was published first on Sept. SCIENCE.

TUMBLE-BUGS AS BAROMETERS. Country folk are firmly of the opinion hat the tumble-bug (Geotrypes stercorarius) s an excellent barometer and that it takes is an excellent barometer and that it takes flight only when a season of fair weather is coming. M. Fabre, a French naturalist, has investigated the question thoroughly and has come to the conclusion that this insect is, in fact, more sensitive than the best barometers, and that it can veritably be used to predict fine weather. It is to changes of electric tension that the insect is sensitive. Whether the American variety is sensitive. Whether the American variety is respectfully referred to our Weather Burgau for investigation.

ORD ERLVIN ON THE TREORY OF COLLISIONS BETWEEN STELLAR BODIES.

At a recent meeting of the Royal Astrocomical Society a note was read giving in plain words Lord Kelvin's suggestions as to he effects attending a collision between two stellar bodies. Presumably the note represents the results of a mathematical investigation yet unpublished. The immediate result of such an impact would be a scattering of matter in all directions, the greater velocities being in lines nearly perpendicular to the line of relative motion of the two impinging bodies. Such velocities of fragments may largely exceed that of the relative motion of the two stars before impact. The matter thus scattered would consist not only of the fragments but also of their decomposed constituents. A pert of the gaseous mass would be raised to a high temperature and a part would be urged outward at a high velocity, with little rise of temperature. This latter cooler pert would be in motion outward and would be an absorbing body, while the radiant hot pert would remain comparatively motionless. A mass of hydrogen moving away from a white-hot central mass would absorb the shorter wave-lengths of the white radiation and would not, of course, absorb the radiation and would not, of course, absorb the radiation and salight, if any, displacement of the bright lines relative to the continuous spectrum, and a shifting of the dark lines toward the violet end of the spectrum. This explanation of Doppler's principle to the shifting of the spectral lines, but does not account for the spectral lines, but does not account for the great breadth of the bright lines. two stellar bodies. Presumably the note

TYPHOONS IN THE PACIFIC OCEAN. The first signs of a typhoon are fine, fleedy cirrus clouds which move from the eastward te-

ward the north. The barometer is stationary. the weather is hot, clear and dry and the winds gentle or else calm. If the clouds come from the weather is hot, clear and dry and the winds gentle or else calm. If the clouds come from the west there will be no typhoon; if from the south then there may be a sign of a typhoos some 600 miles to the southward. These clouds, often of wonderful shapes, appear as far as 1,500 miles from the centre of the typhoon. Sun dogs, phosphorescent seas, brilliant sunsets, often precede such storms. Attentive observation of the cirrus clouds, interpreted according to rules well known to sailors, will often enable a good judgment to be made of the distance of the storm centre. If it is within 500 miles the cloudiness increases and the barometer falls slowly. Within 200 miles of the centre the temperature falls rapidly and the sky is filled with cumulus clouds, the wind increases. From two to fifteen miles from the centre the wind ceases to blow, the sky clears toward the zenith. This is what sea folk call "the eye of the storm. The sea seems to boil and is covered with foam. The calm centre about which the storm rages varies in diameter from four to fifty miles, and her? the rain usually ceases. The barometer varies suadenly up and down during squaits of about ten minutes' duration and rain fails in enpormous quantities. If the centre approaches it is known by a mighty squall, the direction of the wind changes and the barometer begins to rise. The velocity of the wind often rises to 160 miles per hour in the open ocean. The direction of motion of the storm centre and of the wind in the typhoon itself are known from rules based on theory and verified by long experience. A full discussion of all these conditions is contained in Dr. Dobertc's recent work, "The Law of Storms in the Eastern Seas." He has observed 214 typhoons during the last thirteen years of his residence as meteorological observer at Hong Kong.

## THE BAILWAY OF MONT BLANC.

The height of Mont Blanc is about 15,000 feet. Of late years it has been proposed to build a railway, with an elevating shaft, to near to the summit. The work is to be done in three sections; an open-air railway, a lower and an upper tunnel. The first is to start near and an upper tunnel. The first is to start near the Sallanches-Chamounix line and to go along the left side of the Arve valley to Tacouney, 1,100 metres above the sea, where the lower tunnel is to begin. The engineers propose that it should run on the left shore of the Tacouney glacier toward the peak Gros Buchar on the Aiguille du Gouter. There are no insuperable obstacles to this work and at the various places the line can safely be laid in the open. The lower tunnel will be about 3½ miles in length, and end at an altitude of 3,843 metres, where a hotel will be about \$\frac{3}{2}\$ miles in length, and end at an altitude of \$3.843 metres, where a hotel will be erected. The upper tunnel is to be in two parts. the first under the Dome du Gouter, \$1\frac{1}{2}\$ miles long, ending at a height of \$4.363\$ metres. The second part will continue to the Great Plateau, under the Rochers des Bosses, and end at the Petits Rochers rouges, \$4.580 metres above sea. The summit of the Petits Mulets is \$10 metres higher, and cannot be reached by rail on account of the ice, but will be gained by an elevator. The true summit is still 220 metres higher and must be reached on foot, or else by rope railway. The cost is estimated at \$21,000,000 francs or say \$4.250,000. The line will be an electric cog-railway and the power is to come from the waters of the Arve. It is expected that travellers can be landed at the Alguille du Gouter in Jüly, 1902.

THE NEW STAR HAS BECOME A NEBULA. Observations of the new star of 1901 (Nova Persei) show that it has now completed; or nearly completed, the cycle of its changes. On June 19 its spectrum was compared with the spectrum of the gaseous nebula N. G. C. 3918, at the Harvard College observatory, and the general result is that the spectrum of the new star and of the nebula have no marked difference. The star has become a nebula. Specifically, the principal nebula line at W. L. 5007 is about eight times as bright as the Beta line of hydrogen in the nebula, but about equal to it in brilliancy in the star, Eleven lines in the nebula spectrum have the same positions, and about the same relative brilliancies in the two spectra, which indicates the substantial identity of constitution of the two bodies. Four bright lines appearing in the spectrum of the star are not present in the spectrum of the nebula. It is probable that these lines, which are the index of the stellar outburst, will fade as time goes on, and perhaps vanish altogether.

Taking all the evidence together it follows that the new star of 1991, originally a stellar body has nearly completed the cycle of its changes and has now become a glowing mass of gas, a true nebula. In this result, and in many of the processes leading to it, the star of 1991 agrees with its forerunner Nova Auriga, the new star of 1892.

NEW METHODS OF OBSERVING VARIABLE On June 19 its spectrum was compared with

STARS. Dr. Schwarzschild has lately been observing the well-known variable star Eta Aquice by photography and has come to the conclusion that while the period, the times of maxima, &c., as derived from visual observations, are fully confirmed by his photographs, the change of brilliancy is not confirmed. Visual observations show the change to be 67-100 of a magnitude; the photographs (sensitive to blue and not to yellow light), show the change to be 1 29-00 magnitude. The difference may be explained in either of two ways. First, the star may increase in temperature at maximum, in which case more blue rays will be given out. Secondly, the cause of variation may be a tidal ebb and flow of an absorbing atmosphere (Klinkerfuer's theory). This star has a companion star, and it is possible to explain the changes of brilliancy by atmospheric tides set up in its atmosphere by the companion. Aquile by photography and has come to the

THE PREPARATION OF RADIUM

The new metals, polonium, radium and actinium are likely to be heard of often in the next few years on account of their marvellous powers of radiating electrified particles. As matters stand at present, they appear to have infinite power in this respect, radiating energy ceaselessly without loss. These metals are contained in the ores of uranium, vanadium and therium, in pitchblende and in chalcolyte, carnotite and antunite. M. and Mme. Curle have separated these metals by complex and costly processes that need not be here described. Less than two grains of radium result from every ton of mineral. The radiating power of this metal is one ten-millionth of a watt and the displacement of the metal is one milligram in a billion years. When the dust of this metal is present in the laboratory all the apparatus present is electrified, rendered radio-active, in spite of ordinary insulation. the next few years on account of their mar-

IODINE IN THE HUMAN BODY.

M. Bourget, has detected the presence of odine, not only in the thyroid glands, but also in the blood and in nearly all the organs of the human body. Plants absorb iodine from the soil, to which it is brought by the under-ground waters: herbivorous animals take the iodine in with their food, and man, in his turn, takes it in with the flesh of animals. It is eliminated from the human body through the sweat, in the cuttings of hair and nails in the blood and in nearly all the organs of